CLAIMS

1. A method of manufacturing a superconducting wire, comprising the steps of:

filling a raw material powder in a metal pipe, the raw material powder being composed of an oxide superconductor or a precursor to become an oxide superconductor through heat treatment;

depressurizing the inside of the metal pipe;

sealing an opening at an end portion of the metal pipe under the depressurized condition; and

subjecting the sealed metal pipe containing the raw material powder to wire drawing,

wherein the packing density of the raw material powder is 10 percent or more and 40 percent or less.

2. A method of manufacturing a superconducting wire, comprising the steps of:

filling a raw material powder in a metal pipe, the raw material powder being composed of an oxide superconductor or a precursor to become an oxide superconductor through heat treatment;

heating the metal pipe filled with the raw material powder to 400°C or more and 800°C or less;

depressurizing the inside of the heated metal pipe to 100 Pa or less; sealing an

opening at an end portion of the metal pipe under the depressurized condition; and

subjecting the sealed metal pipe containing the raw material powder to wire drawing,

wherein the packing density of the raw material powder is 10 percent or more and 40 percent or less.

3. The method of manufacturing a superconducting wire according to Claim 1 or 2, further comprising the step of heat-treating the raw material powder at 400°C or more and 800°C or less before the raw material powder is filled in the metal pipe, the raw material powder being composed of an oxide superconductor or a precursor to become an oxide superconductor through heat treatment.

4. The manufacturing method of a superconducting wire according to any one of Claims 1 to 3, wherein the depressurization speed is controlled at 2 kPa/min or less in the depressurization step.

5. The manufacturing method of a superconducting wire according to any one of Claims 1 to 4, wherein the metal pipe is sealed by any one of electron beam welding, brazing, and pressure welding of an exhaust nozzle welded to the metal pipe.